## Katsunari Oikawa

List of Publications by Year in descending order

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KATSUNADI OIKANAA

#	Article	IF	CITATIONS
1	Magnetic-field-induced shape recovery by reverse phase transformation. Nature, 2006, 439, 957-960.	27.8	1,631
2	Magnetic and martensitic transformations of NiMnX(X=In,Sn,Sb) ferromagnetic shape memory alloys. Applied Physics Letters, 2004, 85, 4358.	3.3	990
3	Cobalt-Base High-Temperature Alloys. Science, 2006, 312, 90-91.	12.6	884
4	Metamagnetic shape memory effect in a Heusler-type Ni43Co7Mn39Sn11 polycrystalline alloy. Applied Physics Letters, 2006, 88, 192513.	3.3	378
5	Promising ferromagnetic Ni–Co–Al shape memory alloy system. Applied Physics Letters, 2001, 79, 3290-3292.	3.3	335
6	Magnetic and martensitic phase transitions in ferromagnetic Ni–Ga–Fe shape memory alloys. Applied Physics Letters, 2002, 81, 5201-5203.	3.3	315
7	Phase Equilibria and Phase Transformations in New B2-type Ferromagnetic Shape Memory Alloys of Co-Ni-Ga and Co-Ni-Al Systems. Materials Transactions, 2001, 42, 2472-2475.	1.2	261
8	Effect of magnetic field on martensitic transition of Ni46Mn41In13 Heusler alloy. Applied Physics Letters, 2006, 88, 122507.	3.3	254
9	Phase Equilibria and Microstructure on γ′ Phase in Co-Ni-Al-W System. Materials Transactions, 2008, 49, 1474-1479.	1.2	254
10	Observation of large magnetoresistance of magnetic Heusler alloy Ni50Mn36Sn14 in high magnetic fields. Applied Physics Letters, 2006, 89, 182510.	3.3	247
11	The magnetic and structural properties of the magnetic shape memory compound Ni2Mn1.44Sn0.56. Journal of Physics Condensed Matter, 2006, 18, 2249-2259.	1.8	234
12	Kinetic arrest of martensitic transformation in the NiCoMnIn metamagnetic shape memory alloy. Applied Physics Letters, 2008, 92, .	3.3	209
13	Partition behavior of alloying elements and phase transformation temperatures inÂCo–Al–W-base quaternary systems. Intermetallics, 2013, 32, 274-283.	3.9	193
14	Observation of field-induced reverse transformation in ferromagnetic shape memory alloy Ni50Mn36Sn14. Applied Physics Letters, 2006, 88, 132505.	3.3	184
15	Low-temperature ordering of L10–CoPt thin films promoted by Sn, Pb, Sb, and Bi additives. Applied Physics Letters, 2001, 78, 1104-1106.	3.3	150
16	The Control of the Morphology of MnS Inclusions in Steel during Solidification ISIJ International, 1995, 35, 402-408.	1.4	147
17	Ductility enhancement by boron addition in Co–Al–W high-temperature alloys. Scripta Materialia, 2009, 61, 612-615.	5.2	135
18	Stress-strain characteristics in Ni–Ga–Fe ferromagnetic shape memory alloys. Applied Physics Letters, 2004, 84, 1275-1277.	3.3	133

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19	Magnetic and Martensitic Phase Transformations in a Ni <sub>54</sub> Ga <sub>27</sub> Fe <sub>19</sub> Alloy. Materials Transactions, 2002, 43, 2360-2362.	1.2	120
20	Effect of Titanium Addition on the Formation and Distribution of MnS Inclusions in Steel during Solidification ISIJ International, 1997, 37, 332-338.	1.4	105
21	Entropy change at the martensitic transformation in ferromagnetic shape memory alloys Ni2+xMn1â^'xGa. Journal of Applied Physics, 2003, 93, 8483-8485.	2.5	100
22	Magnetic domain structures in Co–Ni–Al shape memory alloys studied by Lorentz microscopy and electron holography. Acta Materialia, 2002, 50, 2173-2184.	7.9	97
23	Metamagnetic shape memory effect in NiMn-based Heusler-type alloys. Journal of Materials Chemistry, 2008, 18, 1837.	6.7	96
24	Magnetocrystalline anisotropy in single-crystal Co–Ni–Al ferromagnetic shape-memory alloy. Applied Physics Letters, 2002, 81, 1657-1659.	3.3	94
25	Direct evidence of magnetically induced phase separation in the fcc phase and thermodynamic calculations of phase equilibria of the Co–Cr system. Acta Materialia, 2002, 50, 2223-2232.	7.9	91
26	Magnetic properties on shape memory alloys Ni2Mn1+In1â^'. Journal of Magnetism and Magnetic Materials, 2009, 321, 773-776.	2.3	85
27	Thermodynamic calculations of Fe-Zr and Fe-Zr-C systems. Journal of Phase Equilibria and Diffusion, 2001, 22, 406-417.	0.3	82
28	Phase transformations in Ni–Ga–Fe ferromagnetic shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 403-408.	5.6	81
29	Magnetic-field-induced strain of Fe–Ni–Ga in single-variant state. Applied Physics Letters, 2003, 83, 4993-4995.	3.3	66
30	Effects of Pt and Ta on the magnetic anisotropy of Co and Co–Cr thin films. Journal of Magnetism and Magnetic Materials, 1999, 202, 305-310.	2.3	62
31	Magnetic and Crystallographic Properties of Shape Memory Alloys Ni <sub>2</sub> Mn <sub>1+x</sub> Sn <sub>1-x</sub> . Materials Science Forum, 0, 583, 119-129.	0.3	61
32	Magnetic domain structure in a ferromagnetic shape memory alloy Ni51Fe22Ga27 studied by electron holography and Lorentz microscopy. Applied Physics Letters, 2003, 82, 3695-3697.	3.3	58
33	Magnetic properties of Mn-rich Ni2MnSn Heusler alloys under pressure. Journal of Alloys and Compounds, 2009, 486, 51-54.	5.5	56
34	Ferromagnetic Co-Ni-Al Shape Memory Alloys with β+γ Two-Phase Structure. Materials Transactions, 2004, 45, 427-430.	1.2	55
35	Temperature dependence of magnetocrystalline anisotropy constants in the single variant state of L10-type FePt bulk single crystal. Applied Physics Letters, 2006, 88, 102503.	3.3	54
36	Phase equilibria and phase transformation of Coâ^'Niâ^'Ga ferromagnetic shape memory alloy system. Journal of Phase Equilibria and Diffusion, 2006, 27, 75-82.	1.4	53

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37	New ternary compound Co3(Ge,W) with L12 structure. Scripta Materialia, 2007, 56, 141-143.	5.2	51
38	Phase equilibria and thermodynamic calculation of the Co–Ta binary system. Intermetallics, 2014, 49, 87-97.	3.9	49
39	Effects of B and C on the ordering of L10-CoPt thin films. Applied Physics Letters, 2001, 79, 2001-2003.	3.3	48
40	Study of the low temperature ordering of L10–Fe–Pt in Fe/Pt multilayers. Journal of Applied Physics, 2003, 94, 7222-7226.	2.5	47
41	The effects of addition of deoxidation elements on the morphology of (Mn,Cr)S inclusions in stainless steel. Journal of Phase Equilibria and Diffusion, 1999, 20, 215-223.	0.3	46
42	Crystal structures and phase transitions in ferromagnetic shape memory alloys based on Co–Ni–Al and Co–Ni–Ga. Journal of Physics Condensed Matter, 2005, 17, 1301-1310.	1.8	46
43	Influence of intermartensitic transitions on transport properties of Ni2.16Mn0.84Ga alloy. Journal of Physics Condensed Matter, 2004, 16, 1951-1961.	1.8	43
44	Phase Equilibria and Phase Transition of the Ni–Fe–Ga Ferromagnetic Shape Memory Alloy System. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 767-776.	2.2	40
45	Influence of Co Addition on Martensitic and Magnetic Transitions in Ni-Fe-Ga β Based Shape Memory Alloys. Materials Transactions, 2005, 46, 734-737.	1.2	38
46	Phase transformations and grain growth behaviors in superalloy 718. Journal of Alloys and Compounds, 2018, 737, 83-91.	5.5	37
47	Thermodynamic Calculations of Phase Equilibria in the Fe-Cr-S System ISIJ International, 2000, 40, 182-190.	1.4	36
48	Thermodynamic calculations of phase equilibria of Co–Cr–Pt ternary system and magnetically induced phase separation in the FCC and HCP phases. Journal of Magnetism and Magnetic Materials, 2001, 236, 220-233.	2.3	36
49	Magnetic Field-Induced Strain of Ni–Co–Mn–In Alloy in Pulsed Magnetic Field. Japanese Journal of Applied Physics, 2007, 46, 995-998.	1.5	33
50	Experimental Verification of Magnetically Induced Phase Separation in αCo Phase and Thermodynamic Calculations of Phase Equilibria in the Co–W System. Materials Transactions, 2005, 46, 1199-1207.	1.2	32
51	Development of high density magnetic recording media for hard disk drives: materials science issues and challenges. International Materials Reviews, 2009, 54, 157-179.	19.3	32
52	Wassonite: A new titanium monosulfide mineral in the Yamato 691 enstatite chondrite. American Mineralogist, 2012, 97, 807-815.	1.9	32
53	A New Pb-free Machinable Ferritic Stainless Steel. ISIJ International, 2002, 42, 806-807.	1.4	31
54	Effects of annealing on martensitic and magnetic transitions of Ni–Ga–Fe ferromagnetic shape memory alloys. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2043-2044.	2.3	31

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55	Thermodynamic Assessment of the Bi-Mn System. Materials Transactions, 2011, 52, 2032-2039.	1.2	31
56	Martensitic Transformation and Magnetic Properties of Cu-Ga-Mn β Alloys. Materials Transactions, 2004, 45, 2780-2784.	1.2	28
57	Prediction of effective elements for magnetically induced phase separation in Co–Cr-based magnetic recording media. Applied Physics Letters, 2001, 79, 644-646.	3.3	26
58	Microstructural change near the martensitic transformation in a ferromagnetic shape memory alloy Ni51Fe22Ga27 studied by electron holography. Applied Physics Letters, 2004, 85, 6170-6172.	3.3	26
59	Magnetic properties and phase stability of half-metal-type Co2Cr1â^'xFexGa alloys. Journal of Alloys and Compounds, 2005, 399, 60-63.	5.5	26
60	Thermodynamic assessment of the KCl–K2CO3–NaCl–Na2CO3 system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2007, 31, 155-163.	1.6	26
61	Martensitic transformation in Ni–Fe–Ga alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 478, 125-129.	5.6	26
62	Simulation of hexagonal–orthorhombic phase transformation in polycrystals. Acta Materialia, 2007, 55, 233-241.	7.9	25
63	Phase Equilibria and Ternary Intermetallic Compound with L12 Structure in Co-W-Ga System. Journal of Phase Equilibria and Diffusion, 2009, 30, 587-594.	1.4	25
64	Thermodynamic assessment for the Bi–Mn binary phase diagram in high magnetic fields. Journal of Alloys and Compounds, 2013, 577, 315-319.	5.5	21
65	Simulation of the Center-Line Segregation Generated by the Formation of Bridging. ISIJ International, 2014, 54, 359-365.	1.4	20
66	Morphology of Sulfide Formed in the Fe-Cr-S Ternary Alloys ISIJ International, 2002, 42, 1297-1302.	1.4	19
67	Shape Memory Effect Associated with FCC—HCP Martensitic Transformation in Co-Al Alloys. Materials Transactions, 2003, 44, 2732-2735.	1.2	19
68	Effect of Alloying Elements on fcc/hcp Martensitic Transformation and Shape Memory Properties in Co-Al Alloys. Materials Transactions, 2006, 47, 2381-2386.	1.2	19
69	Martensitic Transformation in NiCoMnSn Metamagnetic Shape Memory Alloy Powders. Materials Transactions, 2008, 49, 1915-1918.	1.2	19
70	Molecular-dynamic simulations of martensitic transformation of cobalt. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 2307-2314.	2.2	17
71	Magnetocrystalline Anisotropy in a Single-Variant Co-Ni-Al Ferromagnetic Shape Memory Alloy. Materials Transactions, 2003, 44, 2180-2183.	1.2	16
72	Influence of hot-working conditions on grain growth of superalloy 718. Journal of Materials Processing Technology, 2019, 267, 26-33.	6.3	15

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73	Preparation of Sputter-deposited Fe–Pd Thin Films. Materials Transactions, JIM, 2000, 41, 1139-1141.	0.9	13
74	Phase Equilibria in Ni-Rich Portion of Ni-Si System. Materials Transactions, 2007, 48, 2259-2262.	1.2	13
75	Reassessment of Liquid/Solid Equilibrium in Ni-Rich Side of Ni-Nb and Ni-Ti Systems. Materials Transactions, 2010, 51, 781-786.	1.2	13
76	Assessment of Temperature and Pressure Dependence of Molar Volume and Phase Diagrams of Binary Al–Si Systems. Materials Transactions, 2014, 55, 1673-1682.	1.2	12
77	Morphology Control of MnS in Steel during Solidification. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1994, 80, 623-628.	0.4	11
78	Phase Transformation of Ni <sub>2</sub> MnGa Made by the Spark Plasma Sintering Method. Materials Transactions, JIM, 1999, 40, 389-391.	0.9	11
79	A Thermodynamic Database for Fe-Cr-Mn-Ni-Ti-S-C-N System. Materials Science Forum, 2005, 500-501, 711-718.	0.3	11
80	FCC/HCP Martensitic Transformation and High-Temperature Shape Memory Properties in Co-Si Alloys. Materials Transactions, 2006, 47, 2377-2380.	1.2	10
81	A large magnetic-field-induced strain in Ni–Fe–Mn–Ga–Co ferromagnetic shape memory alloy. Journal of Alloys and Compounds, 2013, 577, S372-S375.	5.5	10
82	Simulation of the Center-Line Segregation Generated by the Formation of Bridging. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 94-100.	0.4	10
83	Three-dimensional Numerical Simulation of Channel Segregation in Directionally Solidified Sn-20 mass% Bi Ingot. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 135-140.	0.4	10
84	Methodological Progress for Computer Simulation of Solidification and Casting. ISIJ International, 2010, 50, 1724-1734.	1.4	9
85	Assessment of the temperature and pressure dependence of molar volume and phase diagrams of Cu and Zn. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2014, 47, 114-122.	1.6	9
86	Kinetics of Nitrogen Absorption and Desorption in High-Cr Molten Steel under Pressurized Atmosphere. ISIJ International, 2016, 56, 1746-1750.	1.4	9
87	Solidification of Cu-Cu <sub>2</sub> S Alloys in Stable and Metastable Systems. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1995, 59, 1207-1214.	0.4	8
88	Alloy Phase Diagrams Study and Its Application for New Alloy Development. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2008, 72, 545-556.	0.4	8
89	Phase Equilibria in FeS–XS and MnS–XS (X=Ti, Nb and V) Systems. ISIJ International, 2009, 49, 936-941.	1.4	8
90	Numerical Simulation of Effect of Thermo-solutal Flow on Macrosegregation in Continuously Cast Slabs. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2017, 103, 747-754.	0.4	8

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91	Estimation of γ/Ĵ³â€² interfacial energy in Ni-Co base superalloy TMW-4M3. Journal of Crystal Growth, 2019, 506, 91-96.	1.5	8
92	Experimental investigations of fcc/bcc phase equilibria in the Cr–Mn–Ni ternary system. Intermetallics, 2020, 127, 106994.	3.9	8
93	Investigation on the Ïf-phase-related equilibria in Cr-Mn-Co system. Journal of Alloys and Compounds, 2021, 867, 159024.	5.5	8
94	Compressive Properties of Ni <sub>2</sub> MnGa Produced by Spark Plasma Sintering. Materials Transactions, JIM, 1999, 40, 863-866.	0.9	7
95	Development of Machinable High-Strength Copper-Based Alloys by Sulfide Dispersion. Materials Transactions, 2003, 44, 2088-2093.	1.2	6
96	Magnetic Anisotropy Energy of L1 <sub>0</sub> CoPt-B Thin Films Elongated c-axis. Materials Transactions, 2003, 44, 1514-1517.	1.2	6
97	Segregation Mechanism of Al-based Oxides on Surface of Zn-0.2mass%Al Hot-dip Galvanized Steel Sheets. ISIJ International, 2020, 60, 1765-1773.	1.4	6
98	Solubility Products of VS and NbS in Iron Alloys. ISIJ International, 2009, 49, 942-946.	1.4	5
99	Effect of Cu Addition on Precipitation and Growth Behavior of MnS in Silicon Steel Sheets. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 3843-3851.	2.2	5
100	Microstructural Evolution of Sulfide in Fe-Cr-S Alloys. Materials Science Forum, 2003, 426-432, 993-998.	0.3	4
101	High-Temperature Mechanical Properties of NaCl–Na <sub>2</sub> CO <sub>3</sub> Salt-Mixture Removable Cores for Aluminum Die-Casting. Materials Transactions, 2019, 60, 19-24.	1.2	4
102	Investigation of Crystal Shape Controllability in the Micro-Pulling-Down Method for Low-Wettability Systems. ACS Omega, 2021, 6, 8131-8141.	3.5	4
103	Effects of Aging and Co Addition on Martensitic and Magnetic Transitions in Ni–Al–Fe β-based Shape Memory Alloys. ISIJ International, 2006, 46, 1287-1291.	1.4	4
104	Phase Equilibria and Microstructure of sulfide in Steel. Denki-seiko, 2004, 75, 113-120.	0.0	4
105	Effect of Grinding Stress on the Phase Transformation of Ni <sub>2+<i>x</i></sub> Mn <sub>1−<i>x</i></sub> Ga Powder. Materials Transactions, JIM, 1999, 40, 290-293.	0.9	3
106	Influence of Y-Rich Compounds on High-Cycle Fatigue Performance of Y-Doped M951 Superalloy. Journal of Materials Engineering and Performance, 2019, 28, 6053-6062.	2.5	3
107	Improved elongation in high-strength low-alloy steel by non-monotonic tensile loading and dislocation-based phenomenological plasticity modeling. Materialia, 2019, 8, 100464.	2.7	3
108	Phase equilibria, martensitic transformations and deformation behaviors of the subsystem of Cantor alloyâ~'low-cost Fe-Mn-Cr alloys. Materialia, 2021, 20, 101231.	2.7	3

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109	Mechanical and thermoelectric properties of iridium-ruthenium alloy grown by the micro-pulling-down method. Journal of Crystal Growth, 2021, 573, 126256.	1.5	3
110	Influence of heat flux different between wide and narrow face in continuous casting mould on unevenness of hypo-peritectic steel solidification at off-corner. Ironmaking and Steelmaking, 2022, 49, 845-859.	2.1	3
111	Molecular Dynamics Simulations of Nucleation Process from Supercooled Liquid Pt with EAM Potentials. Materials Transactions, 2001, 42, 2299-2306.	1.2	2
112	Experimental Verification of Magnetically Induced Phase Separation in .ALPHA.Co Phase and Thermodynamic Calculations of Phase Equilibria of Co-W System. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2004, 68, 992-1001.	0.4	2
113	The Effect of Solidification Models on the Prediction Results of the Temperature Change of the Aluminum Cylinder Head Estimated by FDM Solidification Analysis. Materials Science Forum, 2007, 561-565, 1967-1970.	0.3	2
114	Control of Phase Transformation Temperatures by Substituents in Ni-Fe-Ga Ferromagnetic Shape Memory Alloys. Materials Transactions, 2007, 48, 2847-2850.	1.2	2
115	Effect of Zr Addition on Magnetostriction of Tb-Dy-Fe Alloys Prepared by Micro-Pulling-Down Method. Materials Science Forum, 0, 783-786, 2497-2502.	0.3	2
116	Microstructure prediction of TMW-4M3 during heat treatment. Computational Materials Science, 2018, 143, 95-102.	3.0	2
117	Grain Refinement of Heat Affected Zone in High Heat Input Welding by Liquid Phase Pinning of Oxy-Sulfide. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 397-405.	0.4	2
118	High Temperature Deformation and Microstructure Evolution of Ni–Co Base Superalloy TMW-4M3. Materials Transactions, 2020, 61, 632-640.	1.2	2
119	Morphology Control of Sulfide in Fe-Cr-S alloys during the solidification. Materials Research Society Symposia Proceedings, 1999, 580, 369.	0.1	1
120	Effect of Ti and Al Addition on Solidification Structure of Ni–Fe–Mo–Cu Alloys. ISIJ International, 2011, 51, 2029-2035.	1.4	1
121	Observation and Solidification Simulation of Microsegregation in Ni-base Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 80-86.	0.4	1
122	Magnetic field effect on the liquidus boundary of Bi-Mn binary system. , 2014, , .		1
123	Diffusion Behavior of Al in Zn Coating Layer of Zn-0.2mass%Al Hot-dip Galvanized Steel Sheets with and without Temper Rolling during Aging after Production. ISIJ International, 2021, 61, 2264-2273.	1.4	1
124	Phase Stability of the L12 Compound and Microstructural Changes in Co-(W or Mo)-Ta Ternary Alloys. Materials Research Society Symposia Proceedings, 2008, 1128, 60801.	0.1	0
125	Generation and Progress Behavior of Strain-Induced Abnormally Large Grains in Superalloy 718. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 4022-4032.	2.2	0
126	Thermodynamic analysis of KCl-KF-AlCl <sub>3</sub> -AlF <sub>3</sub> system. Keikinzoku/Journal of Japan Institute of Light Metals, 2021, 71, 32-38.	0.4	0

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127	2117 Superelasticity of Co-Ni-Al ferromagnetic shape memory alloys. The Proceedings of the JSME Annual Meeting, 2007, 2007.1, 171-172.	0.0	0
128	Influence of Cu and Mg addition on age-related deterioration in strength and creep behavior of Zn-12Al die casting alloys. International Journal of Materials Research, 2017, 108, 151-154.	0.3	0